

**REMARKS**

Claims 1-81 are pending.

(a) In the present Amendment, independent Claims 1 and 81 have been amended to recite that organosulfur compound (component (d)) is selected from the group consisting of thiophenol, thionaphthol, halogenated thiophenols and metal salts thereof. Support is found, for example, in the originally filed specification at page 14, lines 6-10.

No new matter has been added, and entry of the Amendment is respectfully requested.

(b) Referring to page 2 of the Office Action, Claims 1-50 and 53-81 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,612,940 ("Nesbitt"). In addition, referring to page 5 of the Office Action, Claims 51 and 52 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Nesbitt in view of U.S. Patent No. 5,244,969 ("Yamada").

Applicants traverse and respectfully request the Examiner to reconsider in view of the amendments to the claims and the following remarks.

The present claimed invention is directed to a multi-piece solid golf ball having a solid core, an inner cover layer over the core, and an outer cover layer over the inner cover layer, wherein the solid core is made of a rubber composition formulated from a particular type of base rubber combined in specific proportions with certain other materials, and the inner and outer cover layers are within a specific hardness range, respectively, and the outer cover layer is softer than the inner cover layer. Applicants submit that the recited multi-piece solid golf ball exhibits an excellent synergy from the novel and non-obvious selection and optimization of the solid core materials when combined together with an appropriate distribution of hardness between the inner

and outer cover layers. Thus, the multi-piece solid golf ball obtained from the rubber composition recited by the present claims has a good quality, soft feel when hit with a golf club and an excellent spin performance that enables the ball to travel further when played. (*See, e.g.*, Specification at p. 1, ll. 13-16.)

In more detail, the presently recited rubber composition comprises the material elements (a), (b), (c), (d), (e) & (f). (*See* independent Claims 1 and 81.) For the Examiner's further understanding, the following discussion explains the technical significance of the organosulfur compound (component (d)), as it would have been understood by one of ordinary skill in the art at the time of the invention, in order to not only compare the present claimed invention to Nesbitt but also to further demonstrate the novel and non-obvious differences between a multi-piece solid golf ball obtained from the specific rubber composition recited by the present claims and a golf ball obtained by the teachings of Nesbitt.

As recited by the amended claims, the organosulfur compound is selected from the group consisting of thiophenol, thionaphthol, halogenated thiophenols, and metal salts thereof. In this regard, Applicants respectfully direct the Examiner's attention to the Examples set forth in the present specification. In particular, Applicants note that a comparison of working Example 4 with Comparative Example 2 in Table 2 is appropriate because the base rubbers of polybutadiene of both examples are the same. In Comparative Example 2 there is no addition of "zinc salt of pentachlorothiophenol," whereas working Example 4 includes "zinc salt of pentachlorothiophenol" in the core formulation.

Applicants submit that the unexpectedly superior results of the golf ball according to working Example 4 as compared to Comparative Example 2 would be readily apparent to one of ordinary skill in the art. The carry and the total distance of the golf ball of Example 4 is about 4

to 5 m larger than the golf ball of Comparative Example 2. The difference of the flight distance between these examples is very large. Accordingly, the examples set forth in the present specification clearly demonstrate the patentability of a multi-piece solid golf ball obtained from a composition that includes the presently recited organosulfur compound (component (d)).

Furthermore, Nesbitt is completely silent with respect to the recited organosulfur compound (component (d)). That is, Nesbitt fails to teach, disclose or suggest an organosulfur compound which is selected from the group consisting of thiophenol, thionaphthol, halogenated thiophenols, and metal salts thereof. In particular, one of ordinary skill in the art would appreciate that the organosulfur compound of the present claims is directed to types of thiophenol and thionaphthol, which are types of aromatic compounds. For instance, the chemical structures of thiophenols are analogous to phenols except that the oxygen atom in the hydroxyl group (-OH) bonded to the aromatic ring is replaced by a sulfur atom.

In contrast, the Examiner simply pointed out that Nesbitt discloses dithiocarbonates in column 13, at line 27, which are *aliphatic compounds* (i.e., carbon atoms joined together in straight chains, branched chains, or *non-aromatic rings*).<sup>1</sup> Thus, the dithiocarbonates cited by the Examiner are completely different from, and would not have suggested, the recited organosulfur compounds. Moreover, Applicants submit that one of ordinary skill in the art in possession of the teachings of Nesbitt would have found the superior characteristics of the obtained golf ball of the present claimed invention to be wholly unexpected.

Accordingly, Applicants respectfully submit that Nesbitt provides one of ordinary skill in the art with no particular reason to employ the organosulfur compound of the present claimed

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<sup>1</sup> With all due respect, the Examiner *incorrectly* stated that dithiocarbonates are equivalent to Applicants' organosulfurs.

invention and clearly fails to predict or even suggest the superior results demonstrated by the examples of present application that are obtained from a multi-piece sold golf ball obtained therefrom.

In view of the above, reconsideration and withdrawal of the Section 103 rejection of Claims 1-50 and 53-81 based on Nesbitt and Claims 51 and 52 based on Nesbitt in view of Yamada are respectfully requested.

(c) Reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited.

If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the local, Washington, D.C., telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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